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ADVANZ: Establishing a Pan-African platform for neglected zoonotic disease control through a One Health approach

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Note:

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Advocacy for neglected zoonotic diseases (ADVANZ) is a One Health Neglected Zoonotic Diseases (NZDs) project, funded by the European Commission through its 7th framework programme. The initiative aims at persuading decision makers and empowering stakeholders at local, regional, and international levels towards a coordinated fight against NZDs. ADVANZ is establishing an African platform to share experiences in the prevention and control of NZDs. The platform will compile and package existing knowledge or data on NZDs and generate evidence-based algorithms for improving surveillance and control with the ultimate aim of eliminating and eradicating these diseases. The platform will serve as a forum for African and international stakeholders, as well as existing One Health and NZD networks and harness and consolidate their efforts in the control and prevention of NZDs. The platform had its first meeting in Johannesburg, South Africa in March 2013.

Introduction

Endemic and enzootic zoonoses cause about a billion cases of illness and millions of deaths in people every year (Karesh *et al.* 2012). Of these zoonoses, diseases such as anthrax, bovine tuberculosis, brucellosis, cysticercosis, echinococcosis (hydatid disease) and rabies are considered 'neglected' because they are not adequately addressed at either a national or an international level. The World Health Organization (WHO) uses the term neglected zoonotic diseases (NZDs) to refer to the six aforementioned zoonoses, but also include leishmaniasis and human African trypanosomiasis (WHO 2009). The WHO recognised the need for increasing the global awareness of these diseases as they cause significant morbidity and mortality in the already impoverished rural communities of the world. In 2009, the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) joined the WHO to formulate a concept note on sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces (The FAO-OIE-WHO Collaboration 2010). The so-called FAO-OIE-WHO tripartite recognised the need to establish an environment in which ministers representing the various sectors within countries can voice their expectations and come to a consensus on future activities, with particular reference to collaboration.

Whilst the aetiology of the eight NZDs may be varied, the interventions to prevent and control them are quite similar, especially at the community level. Many of the NZDs are closely linked to poverty and to the lack of basic infrastructure such as water and sanitation (Molyneux *et al.* 2011). Interventions that include engaging communities, creating public awareness and enhancing basic conditions such as hygiene and biosecurity can have an important effect on reducing the risks of transmission (WHO 2010).

In addition, some of the NZDs can be controlled by interventions such as mass vaccination (e.g. rabies [WHO Expert Consultation on Rabies 2005]) or treatment (e.g. echinococcosis [World Health Organization 2011]). Most importantly, several of the diseases can be controlled by creating a simple but effective change of the day-to-day practices amongst the people at risk, such as proper hand washing and preventing open defecation (WHO 2010). Political will and resources are further requirements for the effective control this group of diseases. NZDs are not negligible, as evidenced by their considerable impact on the lives and livelihoods of poor and marginalised populations in particular (Grace *et al.* 2013).

Although the 'One Health' approach initially concentrated on addressing emerging zoonotic diseases and pandemic threats in particular, the approach is gaining recognition for addressing NZDs as they arise from infections transmitted from domesticated (livestock or companion) or wild animals (WHO 2009).

A Pan-African platform

A new Pan-African One Health platform on NZDs (OH NZD) is currently being initiated. The platform is called ADVANZ (Advocacy for Neglected Zoonotic Diseases). At a workshop held in Johannesburg, South Africa in March 2013, representatives of the various key stakeholders in existing networks met to set up a framework for a Pan-African network for OH NZD practitioners. The framework that was agreed upon at the meeting has an interdisciplinary approach, which takes into account the linkages between social, economic and environmental elements affecting human health. The rationale behind the platform is to harness strengths from current disease-specific networks to provide a platform for intersectoral collaboration.

The Cysticercosis Working Group in Eastern and Southern Africa, a network that consists of ten member countries, represents a successful south-south-north network that follows a 'One Health' approach. It is now internationally well recognised, used as a model for other networks and has managed to represent the region in the advocacy for the emerging problem of *Taenia solium* cysticercosis. The proposed ADVANZ platform, which will be based on a similar background, is unique in that multidisciplinary and interdisciplinary networks, groups, private, public and non-governmental organisations and individuals interested in NZDs are eligible to be members of the platform, which will allow experiences and best practices in the prevention and control of NZDs to be shared (Figure 1).

Members of the platform will likely be representatives of mainly south-south networks working on NZDs, private and public organisations, NGOs and working groups from individual countries consisting of key stakeholders involved in the fight against NZDs. The national groups will both address the burden of NZDs in the specific country and

serve as the local channel to utilise the resources availed through the platform. The platform is expected to strengthen the interdisciplinary and multidisciplinary cooperation and coordination amongst scientists and control authorities concerned with NZDs in Africa.

The specific objectives of the platform will be to:

- coordinate and secure continuous advocacy for the intersectoral approach for surveillance and control of NZDs in humans and animals
- disseminate information regarding NZDs
- maintain a forum for continuous communication amongst stakeholders regarding development of evidence-based algorithms for surveillance and control of NZDs
- inform members about NZD-related research and training activities
- inculcate an 'One Health' approach for control and prevention of NZDs.

The proceedings of the ADVANZ meeting with stakeholders can be found at <http://www.advanz.org>. The platform is open for all interested organisations and institutions involved in NZD activities. The corresponding author can be contacted for further information.

Future perspectives

In November 2014, an international conference entitled 'Neglected Zoonoses 4 (NZ4)' will showcase successful NZD approaches, including the ADVANZ platform model. The conference will be organised in association with the aforementioned tripartite, and will be held at the WHO headquarters in Geneva, Switzerland. If the model is successful, it can be applied to other regions of the world suffering from NZDs.

Acknowledgements

Competing interests

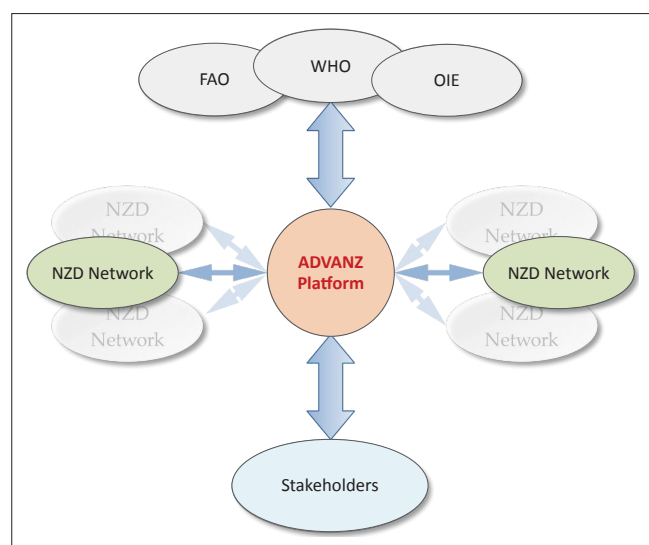
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Authors' contributions

C.F.L.S. (University of Copenhagen) wrote the original draft of the article. S.M. (University of KwaZulu-Natal) and M.V.J. (University of Copenhagen) contributed equally to the manuscript.

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FAO, Food and Agriculture Organization; NZD, neglected zoonotic disease; OIE, World Organisation for Animal Health; WHO, World Health Organization.

FIGURE 1: Proposed structure of the Pan-African One Health platform (ADVANZ) for neglected zoonotic diseases.



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